

What is claimed is:

1. A method for loading a portable executable (PE) image, the method comprising:
  - 5 determining whether a PE image for a platform firmware runtime service includes a discardable section;
    - loading part of the PE image into runtime memory to be used by the platform firmware; and
    - in response to determining that the PE image includes a discardable
  - 10 section, omitting at least part of the discardable section when loading the PE image into the runtime memory.
2. A method according to claim 1, further comprising:
  - 15 loading the discardable section into boot-time memory to be used by the platform firmware.
3. A method according to claim 1, further comprising:
  - 18 using an alignment granularity of less than one kilobyte when loading the PE images into the runtime memory.
- 20 4. A method according to claim 1, further comprising:
  - 22 using an alignment granularity of less than one hundred bytes when loading the PE images into the runtime memory.
- 25 5. A method according to claim 1, further comprising:
  - 28 pre-allocating an area of runtime memory for PE images; and
  - loading sections from multiple PE images into the pre-allocated area of runtime memory.
- 30 6. A method according to claim 1, further comprising:
  - 34 pre-allocating an area of runtime memory for PE images; and

loading sections from multiple PE images into the pre-allocated area of runtime memory; and

using an alignment granularity of less than one kilobyte when loading the PE images into the pre-allocated area of runtime memory.

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7. A method according to claim 1, further comprising:

recording a runtime memory size in association with a first boot process;

and

pre-allocating an area of runtime memory for PE images in association with

10 a subsequent boot process, based at least in part on the recorded runtime memory size.

8. A method according to claim 1, further comprising:

recording a runtime memory size in association with a first boot process;

15 pre-allocating an area of runtime memory for PE images in association with a subsequent boot process, based at least in part on the recorded runtime memory size; and

loading sections from multiple PE Images into the pre-allocated area of runtime memory.

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9. A method according to claim 1, further comprising:

recording a first runtime memory size in association with a first boot process;

pre-allocating an area of runtime memory for PE images in association with

25 a subsequent boot process, based at least in part on the recorded runtime memory size;

loading sections from multiple PE Images into the pre-allocated area of runtime memory;

30 determining how much of the pre-allocated area of runtime memory was used; and

recording a second runtime memory size in association with the second boot process, based at least in part on the determination of how much of the pre-allocated area of runtime memory was used.

10. A method according to claim 1, wherein the PE image comprises header information, the method further comprising:
  - omitting at least part of the header information when loading the PE image
- 5 into the runtime memory.
11. A method for creating a portable executable (PE) image, the method comprising:
  - receiving an object file at a linker, the object file containing multiple
- 10 discardable sections with instructions for performing boot-time operations and a section with instructions for performing runtime operations; and
  - generating an executable PE image, based at least in part on the object file;
- 15 wherein the operation of generating the executable PE image comprises grouping the multiple discardable sections together in the PE image.
12. A method according to claim 11, wherein the operation of grouping the multiple sections with instructions for performing boot-time operations together in the PE image comprises:
  - grouping the multiple discardable sections together below the section with instructions for performing runtime operations.
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13. A method for booting a processing system, the method comprising:
  - retrieving a portable executable (PE) image for a runtime service to be
- 25 provided by platform firmware for the processing system;
  - determining whether the PE image includes a discardable section;
  - in response to determining that the PE image includes a discardable section, loading the discardable section into boot-time memory to be used by the platform firmware; and
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- loading part of the PE image into runtime memory to be used by the platform firmware; but
  - omitting at least part of the discardable section when loading the PE image into the runtime memory.

14. A method according to claim 13, further comprising:
  - pre-allocating an area of runtime memory for PE images;
  - loading sections from multiple PE images into the pre-allocated area of runtime memory; and
  - using an alignment granularity of less than four kilobytes when loading the PE images into the pre-allocated area of runtime memory.
15. A method according to claim 13, wherein the PE image comprises header information, the method further comprising:
  - omitting at least part of the header information when loading part of the PE image into the runtime memory.
16. An apparatus containing control logic for providing a runtime service for a processing system, the apparatus comprising:
  - a machine-accessible medium; and
  - a portable executable (PE) image in the machine-accessible medium, the PE image for providing a runtime service for the processing system, wherein the PE image comprises:
    - 20 a section with instructions for performing runtime operations; and
    - multiple discardable sections with instructions for performing boot-time operations, wherein the multiple discardable sections are grouped together in the PE image.
- 25 17. An apparatus according to claim 16, wherein the multiple discardable sections are grouped together below the section with instructions for performing runtime operations.

18. A processing system with control logic for managing PE images, the processing system comprising:
  - a processor;
  - a machine-accessible medium responsive to the processor;
  - instructions in the machine-accessible medium which, when executed by the processor, implement an image loader; and
  - a portable executable (PE) image in the machine-accessible medium, the PE image for providing a runtime service in platform firmware for the processing system;
- 10 wherein the PE image comprises:
  - a section with instructions for performing runtime operations; and
  - multiple discardable sections with instructions for performing boot-time operations; and

wherein the multiple discardable sections are grouped together in the PE image.
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19. A processing system according to claim 18, wherein the image loader comprises control logic:
  - to determine whether the PE image includes a discardable section;
  - 20 to load part of the PE image into runtime memory to be used by the platform firmware; and
  - in response to determining that the PE image includes a discardable section, to omit at least part of the discardable section when loading the PE image into the runtime memory.
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20. A processing system according to claim 19, wherein the image loader comprises control logic to load the discardable section into boot-time memory to be used by the platform firmware.

21. A processing system according to claim 19, wherein the image loader comprises control logic:
  - to pre-allocate an area of runtime memory for PE images;
  - to load sections from multiple PE images into the pre-allocated area of runtime memory; and
  - to use an alignment granularity of less than four kilobytes when loading the PE images into the pre-allocated area of runtime memory.